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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/626,071	07/23/2003	Lloyd Paul Mills	200310530-1	9762
22879 7590 06/15/2009 HEWLETT PACKARD COMPANY P O BOX 272400, 3404 E. HARMONY ROAD INTELLECTUAL PROPERTY ADMINISTRATION FORT COLLINS, CO 80527-2400				
EXAMINER KARDOS, NEIL R				
ART UNIT 3623		PAPER NUMBER		
NOTIFICATION DATE 06/15/2009		DELIVERY MODE ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/626,071

Applicant(s)

MILLS, LLOYD PAUL

Examiner

Neil R. Kardos

Art Unit

3623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 April 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SI/02)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

This is a **NON-FINAL** Office Action on the merits in response to the request for continued examination filed on April 2, 2009. Currently, claims 1-35 are pending.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 2, 2009 has been entered.

Response to Amendment

Applicant's amendments to claims 1 and 30 are NOT sufficient to overcome the § 101 rejections set forth in the previous Office Action for the reasons explained below.

Applicant's amendments to the claims are sufficient to overcome the § 103 rejections set forth in the previous Office Action. New art has been applied to the claims, and a new grounds of rejection is set forth below.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-11 and 30-35 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 1 and 30: Claims 1 and 30 are directed toward the statutory category of a process. In order for a claimed process to be patentable subject matter under 35 U.S.C. § 101, it must either: (1) be tied to a particular machine, or (2) transform a particular article to a different state or thing. See *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972). If neither of these requirements is met by the claim, the method/process is not patentable subject matter under § 101. Thus, to qualify as a statutory process under § 101, the claim should positively recite the machine to which it is tied (e.g. by identifying the apparatus that accomplishes the method steps), or positively recite the subject matter that is being transformed (e.g. by identifying the material that is being changed to a different state). Nominal recitations of structure in an otherwise ineligible method fail to make the method a statutory process. See *Benson*, 409 U.S. at 71-72. Thus, incidental physical limitations such as insignificant extra-solution activity and field of use limitations are not sufficient to convert an otherwise ineligible process into a statutory one.

Here, the claimed process fails to meet the above requirements for patentability under § 101 because it is not tied to a particular machine and does not transform underlying subject matter. Although the claims recite a processor in the preamble, the preamble is generally not given patentable weight. Further, this recitation amounts to insignificant extra-solution activity or field of use limitations.

Claims 2-11 and 31-35: Dependent claims 2-11 and 31-35 are rejected for failing to remedy the deficiencies of the claims from which they depend.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-9, 12-21, 24-28, and 30-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Subramanian et al. (US 2004/0117236) in view of Brown et al. (US 2003/0055677), and further in view of Zhang, "Modelling Consumer's Demand Uncertainty in Electricity Forward Contracts."

Claims 1, 12, 24 and 30: Subramanian et al. discloses a method for forecasting a potential cost for an indirect procurement commodity (as per claim 1) (paragraph [0007], lines 1-5), a system for forecasting a potential cost for an indirect procurement commodity (as per claim 12) (paragraph [0016], lines 1-3), a computer program product for forecasting a potential cost for an indirect procurement commodity, the computer program product comprising a computer usable medium having computer readable program means (as per claim 24) (paragraph [0016], line 12, paragraph [0017], lines 1-4), and a method of doing business (as per claim 30) (paragraph [0007], lines 1-5) comprising:

- receiving a volume (i.e. load) of the indirect procurement commodity to be block purchased for a future period (paragraph [0017], line 4, paragraph [0018], lines 1-2);
- calculating a cost of the volume of the indirect procurement commodity based on historical consumption data for a past period (paragraph [0022], lines 5-8, paragraph [0018], lines 6-8); and
- forecasting a potential cost of the indirect procurement commodity to be purchased for a future period based on the calculated cost (paragraph [0018], lines 6-10) and at least one variable factor (i.e. on-site generation options) associated with the indirect procurement commodity (paragraph [0009], lines 1-5).

Subramanian et al. does not explicitly disclose that the at least one variable factor is a market imbalance factor. Brown et al. discloses calculating a market imbalance factor (i.e. predicted utility margins and predicted incremental costs) (paragraph [0048]) and [0052] for the future period based on data associated with the past period (paragraph [0011], lines 7-12, paragraph [0044], lines 1-6). It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the method, system and computer program product of Subramanian et al. with the feature of calculating a market imbalance factor (i.e. predicted utility margins and predicted incremental costs) for the future period based on data associated with the past period as taught by Brown et al., as both Subramanian et al. and Brown et al. are directed toward the method, system and computer program product for forecasting a potential cost for an indirect procurement commodity. The motivation for doing so would have

been to take into account the cost of overages and deficits of energy used (e.g. in a more efficient manner).

Subramanian and Brown do not explicitly disclose wherein the market imbalance factor is a function of an index price of energy. However, Brown does disclose "associating a monetary value with the predicted utility margins" and the "associated monetary value may include the estimated utility prices" (see Brown, ¶ 52). Furthermore, Brown discloses a similar equation to the one on page 10 of Applicant's specification: "The predicted incremental costs may be calculated by multiplying the associated monetary values by the predicted utility margins" (see Brown: ¶ 52). While Brown's "associated monetary value" is not explicitly an "index price" of energy, the two essentially perform the same function in that they are associated with the price of a utility. Examiner takes Official Notice that it was well-known in the art at the time the invention was made to use price indices to estimate utility prices (e.g. using the California Independent System Operator index prices). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use well-known price indices as Brown's estimated utility prices when determining Brown's predicted incremental costs (i.e. market imbalance factor). One of ordinary skill in the art would have been motivated to do so for the benefit of efficiencies and accuracies gained through standardization (e.g. through the use of a standard price index).

Subramanian and Brown do not explicitly disclose the equation $M_i = (V_B - V_i) * x_i$, where M_i is the market imbalance factor for a cell, i , of a consumption matrix, V_B is a block volume of the indirect procurement commodity, V_i is an actual volume of consumption for the cell i , and x_i is the index price of energy. However, Brown does disclose "The predicted incremental costs

may be calculated by multiplying the associated monetary values by the predicted utility margins" (see Brown: ¶ 52). In Brown, the predicted utility margins are synonymous to the claimed $V_B - V_i$ (the difference, or margin, between what is purchased and what is consumed), and the associated monetary values of Brown are representative of the claimed index price of energy. As discussed above, it was well-known in the art at the time the invention was made to use price indices to estimate utility prices (e.g. using the California Independent System Operator index prices). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use well-known price indices as Brown's estimated utility prices when determining Brown's predicted incremental costs (i.e. market imbalance factor). One of ordinary skill in the art would have been motivated to do so for the benefit of efficiencies and accuracies gained through standardization (e.g. through the use of a standard price index). Because Applicant has failed to traverse Examiner's Official Notice regarding price indices, which was originally set forth in the previous Office action, Examiner's findings of Official Notice are taken to be admitted prior art. See MPEP § 2144.03 (C).

Furthermore, Zhang discloses the expression $(M-D)*P$, where M is the contracted energy quantum (i.e. the purchased volume of energy), D is the consumer demand (i.e. the actual volume of consumption), and P is the price of energy. (See section 2: pages 455-456; page 455 defines the variables; page 456, section 2.1, paragraph 3 et seq. contains the expression $(M-D)*P$). This is the same as the claimed equation, except that P is the contract price rather than the index price of energy. As discussed above, it was well-known in the art at the time the invention was made to use price indices (especially in the context of requirements contracts). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was

made to substitute well-known price indices for Zhang's contract price P. One of ordinary skill in the art would have been motivated to do so for the benefit of efficiencies, accuracies, and fairness gained through standardization (e.g. through the use of a standard price index).

Claims 2 and 31: Subramanian et al. discloses wherein the indirect procurement commodity comprises energy (paragraph [0002], lines 1-3).

Claims 3 and 13: Subramanian et al. discloses multiplying the volume (i.e. load) of the indirect procurement commodity by a time factor wherein the time factor is associated with the past period (paragraph [0031], paragraph [0030], lines 8-11).

Claims 4 and 14: Subramanian et al. discloses wherein the time factor comprises a number of off-peak hours in the past period (paragraph [0025], paragraph [0030], lines 8-11).

Claims 5 and 15: Subramanian et al. discloses wherein the time factor comprises a number of peak hours in the past period (paragraph [0025], paragraph [0030], lines 8-11).

Claims 6, 16, 25 and 32: Subramanian et al. discloses wherein forecasting a potential cost of the indirect procurement commodity further comprises calculating at least one variable (i.e. on-site generation options) (paragraph [0079], lines 1-5, paragraph [0098]).

Subramanian et al. does not explicitly disclose that the at least one variable factor is a market imbalance factor. However, this deficiency is met by Brown, as discussed in the rejection of claim 1.

Claims 7, 19, 26, and 33: Subramanian et al. discloses the invention substantially as claimed. However, Subramanian et al. does not disclose wherein calculating the market imbalance factor comprises: calculating the market imbalance factor for the future period based on data associated with the past period. However, this deficiency is met by Brown, as discussed in the rejection of claim 1.

Claims 8, 20, 27 and 34: Subramanian et al. discloses the invention substantially as claimed. However, Subramanian et al. does not disclose wherein data associated with the past period comprises consumption data and price index data.

Brown et al. discloses wherein data associated with the past period comprises consumption data (i.e. usage data) and price index data (pricing data).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the method, system and computer program product of Subramanian et al. with the feature of wherein data associated with the past period comprises consumption data and price index data as taught by Brown et al., as both Subramanian et al. and Brown et al. are directed to the method, system and computer program product for forecasting a potential cost for an indirect procurement commodity. The motivation for doing so would have

been to use historical data to calculate the market imbalance factor (and the known efficiencies associated therewith).

Claims 9, 21, 28, and 35: Subramanian et al. discloses the invention substantially as claimed. However, Subramanian et al. does not disclose wherein forecasting the potential cost of the indirect procurement commodity further comprises: adding the market imbalance factor to the cost of the volume of the indirect procurement commodity thereby generating a forecasted cost of the volume of the indirect procurement commodity.

Brown et al. discloses calculating a market imbalance factor (i.e. predicted utility margins) (paragraph [0048]) for the future period based on data associated with the past period (paragraph [0011], lines 7-12, paragraph [0044], lines 1-6). It is common knowledge in the prior art to add the market imbalance factor into the cost of the volume of the indirect procurement commodity once it has been calculated.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the method, system and computer program product of Subramanian et al. with the feature of wherein forecasting the potential cost of the indirect procurement commodity further comprises: adding the market imbalance factor to the cost of the volume of the indirect procurement commodity thereby generating a forecasted cost of the volume of the indirect procurement commodity as taught by Brown et al., as both Subramanian et al. and Brown et al. are directed to the method, system and computer program product for forecasting a potential cost for an indirect procurement commodity. The motivation for doing so would have been to take into account the cost of overages and deficits of energy used in

generating a forecasted cost of the volume of the indirect procurement commodity (and the efficiencies associated therewith).

Claim 17: Subramanian et al. discloses a system for forecasting a potential cost for an indirect procurement commodity (paragraph [0016], lines 1-3), comprising:

- a graphical user interface (i.e. computer screen) (paragraph [0016], line 9); and
- a cost forecasting tool coupled to the graphical user interface (paragraph [0017], lines 1-4) capable of:
 - receiving a volume (i.e. load) of the indirect procurement commodity to be block purchased for a future period (paragraph [0017], line 4, paragraph [0018], lines 1-2);
 - calculating a cost of the volume of the indirect procurement commodity based on historical consumption data for a past period (paragraph [0022], lines 5-8, paragraph [0018], lines 6-8); and
 - forecasting a potential cost of the indirect procurement commodity to be purchased for a future period based on the calculated cost (paragraph [0018], lines 6-10) and at least one variable factor (i.e. on-site generation options) associated with the indirect procurement commodity (paragraph [0009], lines 1-5).

Subramanian et al. does not explicitly disclose that the at least one variable factor is a market imbalance factor, nor does Subramanian explicitly disclose the claimed equation. However, these deficiencies are met by Brown and Zhang, as discussed in the rejection of claim 1. Claim 17 is substantially similar to claim 1 and is rejected under similar rationale.

Claim 18: Subramanian et al. discloses wherein forecasting a potential cost of the indirect procurement commodity further comprises: calculating the at least one variable (i.e. on-site generation options) (paragraph [0079], lines 1-5, paragraph [0098]).

Subramanian et al. does not explicitly disclose that the at least one variable factor is a market imbalance factor. However, this deficiency is met by Brown, as discussed in the rejection of claim 1.

Claims 10-11, 22-23 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Subramanian et al. in view of Brown et al. and Zhang, and further in view of Zaloom (US 6,366,889).

Claims 10, 22 and 29: Subramanian et al. and Brown et al. disclose the invention substantially as claimed. However, Subramanian et al. and Brown et al. do not disclose wherein forecasting the potential cost of the indirect procurement commodity further comprises: factoring a market fluctuation component into the forecasted cost of the volume of the indirect procurement commodity.

Zaloom discloses wherein forecasting the potential cost of the indirect procurement commodity further comprises: factoring a market fluctuation component (i.e. fuel cost adjustment/environmental surcharge) into the forecasted cost of the volume of the indirect procurement commodity (column 17, lines 52-57).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the method, system and computer program product of

Subramanian et al. and Brown et al. with the feature of wherein forecasting the potential cost of the indirect procurement commodity further comprises: factoring a market fluctuation component into the forecasted cost of the volume of the indirect procurement commodity as taught by Zaloom, as Subramanian et al., Brown et al., and Zaloom are directed to the method, system and computer program product for forecasting a potential cost for an indirect procurement commodity. The motivation for doing so would have been to consider market fluctuation into the forecasted cost of the volume of the indirect procurement commodity (and the efficiencies associated therewith).

Claims 11 and 23: Subramanian et al. and Brown et al. discloses the invention substantially as claimed. However, Subramanian et al. and Brown et al. do not disclose wherein the market fluctuation component comprises a best guess estimate of market fluctuation during the future period.

Zaloom discloses wherein the market fluctuation component (i.e. fuel cost adjustment/environmental surcharge) (column 17, lines 52-57) comprises a best guess (i.e. realistic) estimate during the future period (column 17, lines 64-67).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the method and system of Subramanian et al. and Brown et al. with the feature of wherein the market fluctuation component comprises a best guess estimate of market fluctuation during the future period as taught by Zaloom, as Subramanian et al., Brown et al. and Zaloom are directed to the method and system for forecasting a potential cost for an indirect procurement commodity. The motivation for doing so would have been to anticipate

market fluctuation when forecasting a potential cost of the volume of the indirect procurement commodity (and the efficiencies associated therewith).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Kaye, R. J., et al., "Forward Contracts for the Operation of an Electricity Industry Under Spot Pricing," IEEE Transactions on Power Systems, 5:1 (Feb 1990), pp. 46-52.
- Conkling, Roger L., "A California Generation Capacity Market," The Electricity Journal, 11:8 (Oct 1998), pp. 27-35.

This Office action has an attached requirement for information under 37 CFR

1.105. A complete reply to this Office action must include a complete reply to the attached requirement for information. The time period for reply to the attached requirement coincides with the time period for reply to this Office action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Neil R. Kardos whose telephone number is (571) 270-3443. The examiner can normally be reached on Monday through Friday from 9 am to 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Beth Boswell can be reached on (571) 272-6737. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Neil R. Kardos
Examiner
Art Unit 3623

/Neil R. Kardos/
Examiner, Art Unit 3623

/Beth V. Boswell/
Supervisory Patent Examiner, Art Unit 3623

Requirement for Information Under 37 C.F.R. 1.105

Applicant and the assignee of this application are required under 37 CFR 1.105 to provide the following information that the examiner has determined is reasonably necessary to the examination of this application.

Examiner would like to know if the equation in the independent claims, $M_i = (V_B - V_i) * x_i$, also described on page 10 of the specification, is a result of Applicant's novel and non-obvious creation, or if it was borrowed or modified from prior art. The specification does not provide guidance as to the origin of this formula.

In response to this requirement, please provide answers to each of the following interrogatories eliciting factual information:

- A. Is the Applicant aware of the above equation being known or used by anyone other than the Applicant before the filing of the present invention?
- B. Did the Applicant create or otherwise invent the above equation?
- C. Please provide the title, citation and copy of each publication that any of the applicants relied upon to develop the disclosed subject matter that describes the applicant's invention, particularly as to developing the above equation. For each publication, please provide a concise explanation of the reliance placed on that publication in the development of the disclosed subject matter.

The fee and certification requirements of 37 CFR 1.97 are waived for those documents submitted in reply to this requirement. This waiver extends only to those documents within the scope of this requirement under 37 CFR 1.105 that are included in the applicant's first complete communication responding to this requirement. Any supplemental replies subsequent to the first

communication responding to this requirement and any information disclosures beyond the scope of this requirement under 37 CFR 1.105 are subject to the fee and certification requirements of 37 CFR 1.97.

The applicant is reminded that the reply to this requirement must be made with candor and good faith under 37 CFR 1.56. Where the applicant does not have or cannot readily obtain an item of required information, a statement that the item is unknown or cannot be readily obtained may be accepted as a complete reply to the requirement for that item.

This requirement is an attachment of the enclosed Office action. A complete reply to the enclosed Office action must include a complete reply to this requirement. The time period for reply to this requirement coincides with the time period for reply to the enclosed Office action.

/Neil R. Kardos/
Examiner, Art Unit 3623

/Beth V. Boswell/
Supervisory Patent Examiner, Art Unit 3623